

Vol. 4 no. 3 September 1983

**Featuring:**  
**Environment Canada and the North**  
**New Minister Charles Caccia**  
**Inuit Circumpolar Conference**  
**Northern Parks**  
**Lancaster Sound**  
**Stokes Point**

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# Environment Update

Over the years Environment Canada has become increasingly aware of its responsibility towards its diverse publics. The aim of *Environment Update* is to inform interested people about the programs & activities of our department. We recognize the value of working cooperatively with Canadian citizens & our colleagues outside of government. We are in fact, creating links. These links will allow us to meet our objective along with those who share our concern for a better Environment.

Each publication features a specific issue & includes articles on other topics from across Canada reflecting the full spectrum of services of

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*Update* is published under the authority of the Honorable Charles Caccia, Minister, Environment Canada.

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# New Minister No Stranger To Environmental Issues

## Welcome, Mr. Caccia!

On behalf of the whole department, I am delighted to welcome our new minister, Hon. Charles Caccia, to Environment Canada. Mr. Caccia has a professional background in forestry, and has long been concerned with the environment. Under his leadership, we shall continue our efforts to preserve and enhance our natural heritage.

The future will bring many opportunities where working together will result in developing the best solutions for the issues we face. Among them, for example, are acid rain, the control of toxic chemicals and the sound management of our forests, wildlife, land and water resources. Our conscientious efforts today will mean better management of our resources leading us towards a more sustainable tomorrow.

A prime focus of activity is Canada's north. We must work with other departments and agencies, including the territorial governments, to ensure that northern development proceeds wisely, carefully and constructively. Our discussion paper, Environment Canada and the North, will help other concerned Canadians to join us in this enterprise.

In this issue of Environment Update you will find many articles about the north. On behalf of Mr. Caccia and Environment Canada, I invite you to send us your queries, comments and suggestions.

Jacques Gérin  
Deputy Minister

**Environment Canada's new minister, Charles L. Caccia, is no stranger to environmental concerns.** Born and educated in Italy, he graduated from the University of Vienna in 1954 in the economics of forestry. The following year he worked for the faculty of forestry at the University of Toronto, and in 1959 formed his own consulting and publishing firm.

He was elected to Toronto City Council and Metro Council in 1964, winning re-election two years later. Since 1968 he has been member of Parliament for Toronto Davenport.

Mr. Caccia has been active on the standing committee on labor, manpower and immigration, the committee on fisheries and forestry, the committee on health, welfare and social affairs, and the committee on finance, trade and economic affairs.

In 1977 the House of Commons passed his private member's bill proposing the establishment of a solar energy institute. A motion by Mr. Caccia, unanimously adopted by the House in 1978, called for mortgage incentives to builders and developers using passive solar energy designs, or solar energy systems for space and water heating.

Later that same year, the House unanimously endorsed a motion by Mr.

Caccia which led to the practice of recycling waste paper on Parliament Hill. Other private member's bills proposed by Mr. Caccia dealt with national forestry policy, the Environmental Contaminants Act and an environmental bill of rights.

From 1969 to 1971 he served as parliamentary secretary to three cabinet ministers. In September 1981 he became Minister of Labor. He assumed his new post as Minister of the Environment on Aug. 12.

In 1973 Mr. Caccia visited the People's Republic of China with Prime Minister Trudeau. He was parliamentary observer at the United Nations in 1976, at the Belgrade Conference on Security and Cooperation in Europe in 1977, and led the Canadian parliamentary delegation to a similar conference in Madrid in 1980.

In 1979 he was elected chairman of the Canadian Parliamentary Helsinki Group, and re-elected to that post in 1980. As a member of the Canadian section of the Interparliamentary Union, Mr. Caccia has also attended conferences in Caracas (1979), Oslo (1980) and East Berlin (1980).

In May 1980 he led the Canadian delegation to the Parliamentary Conference on Security and Cooperation in Europe, held in Brussels. Between June and October of that year he was chairman of the External Affairs subcommittee on the conference.



Ambassador to the U.S. Paul Robinson and Environment Minister Charles Caccia. Story page 9. Photo: United Press Canada



# Environment Canada and the North

**Environment Canada is asking Canadians to help chart a course for northern development that will sustain both the people and the natural environment north of 60°.**

**Former environment minister John Roberts believes that northern resource development projects, such as those in the Beaufort Sea region, challenge us to demonstrate concepts of development that respect the rights and welfare of all groups.**

"We have an opportunity to chart a course for northern development that provides an equitable distribution of the benefits and costs of development," said Mr. Roberts. "This is a course that enables northerners, particularly the native people, to play a full role in shaping their destiny and to influence national affairs; and a course that guides resource use in ways that maintain cultural, environmental and renewable resource values for future generations."

To stimulate public debate about the north, the department released a discussion paper in July entitled ***Environment Canada and the North***. The paper is intended to help the territorial governments, other federal departments, interested organizations and citizens to review and comment on Environment Canada's northern policies, programs and plans.

Public consultation on the discussion paper will be coordinated by the department's two regional directors general responsible for the north. Meetings will be convened this fall in the Northwest Territories, but Yukon residents may have to wait until next year to talk formally with department officials about the paper.

"We plan to sit down with the Yukon government this fall," said Dr. Anthony Boydell, the department's regional director general for the Pacific and Yukon. "I hope we reach a consensus on the paper, but whether we do or not, we will go to the public in the spring of 1984 with the outcome of our discussion."

Dr. Andrew Macpherson, director general for the western and northern region, will also use existing institutions in the north to obtain comments on the discussion paper.

"A public meeting will be convened this fall in Yellowknife," he said, "but as soon as possible we will consult native

organizations, hamlet councils and the Northwest Territories government."

Although the primary responsibility for northern programs rests with the Department of Indian Affairs and Northern Development, Environment Canada has important responsibilities in the management and protection of the northern environment and its resources.

The department is responsible for national parks, migratory birds and related conservation areas, river basin planning and the administration of pollution abatement regulations. To help discharge this mandate, Environment Canada personnel undertake scientific and engineering research projects in the northern environment.

The weather service provides meteorological, ice and sea-state forecasts and climate information for northern residents and industry. The department is responsible for maintaining readily available, effective reporting and surveillance mechanisms for use in environmental emergencies, such as oil spills.

Environment Canada has various other roles in the north, as well. It gives advice on science and policy to industry and other government departments, acts as an environmental auditor to report on the adequacy of environmental management and protection measures, and informs and consults the public about the quality of the environment. It also acts as an environmental advocate, promoting the sound use of natural resources in the north.

In cooperation with others, Environment Canada plans to establish a comprehensive network of protected areas in the north — national parks, wildlife areas, bird sanctuaries, ecological reserves. Besides preserving significant features of Canada's natural and cultural heritage, this will provide opportunities for their public appreciation and enjoyment.

Dr. Macpherson sees this goal as extremely important, but believes a bigger challenge will be the overall protection of the arctic environment. The department is working to meet the challenge. It will promote environmentally sound technology and operating procedures in northern resource exploration and development, and in community development,

transportation and other infrastructure systems. In environmental emergencies, it will cooperate with other agencies in rapid cleanup and rehabilitation operations.

To facilitate public discussion, Environment Canada will provide more information about environmental quality and resource use, and will initiate public consultations on environmental management policies and programs in the north.

The discussion paper, ***Environment Canada and the North***, is a first step in this consultation process — the basis for discussions with the territorial government, organized groups and other members of the public. "When the process is complete," said Dr. Boydell, "we will analyze the information obtained to help better define Environment Canada's role in the north."

Dr. Boydell envisions the drafting of several general statements of principles, similar to the department's strategic plan, to give direction to Environment Canada's activities in the north over the next decade. In addition, he sees the need for separate regional plans for the territories.

Since northern development will affect all Canadians, people living south of 60° have opportunities to discuss their concerns directly with department officials. National conservation organizations and other public interest groups will be invited to comment on the discussion paper, and public consultation meetings will be held in Ottawa and the regions.

Dr. Macpherson is worried, however, that some sectors of society may be forgotten.

"Many native people living on provincial lands, especially those in Labrador, will be directly affected by northern development," he observed. "We must draw them and other concerned groups into the discussion."

One way to become involved is to review and comment on the ideas presented in the paper, ***Environment Canada and the North***. Copies can be obtained by writing to:

The Enquiry Centre  
Environment Canada  
Ottawa, Ont.  
K1A 0H3  
(819) 997-2800



# The Future of Stokes Point



*Dew line site, Beaufort Sea.*

At first sight, this abandoned DEW line site on the shores of the Beaufort Sea has all the features of many similar locations in the arctic: past use, spectacular scenery, contrary weather, and insects — hordes of them. Why has it elicited and polarized the many views on the future use of the area?

**Stokes Point is in the middle of a proposed national park in the northern Yukon, part of a wider area of some 38 850 square kilometres set aside for conservation in 1978. It is also seen as a convenient and practical marine staging area for Gulf Canada, soon to begin a major five-year exploration program in the Beaufort Sea.**

It can be convincingly argued that development has already affected the area, but not adversely — except for some minor scarring of the landscape by the abandoned air strips, storage buildings and empty fuel tanks. Moreover, proponents say, nearly a decade of experience elsewhere in the north shows that use by Gulf can be localized, contained and held to an acceptable level. As well, they argue, the site can be returned to an almost normal appearance once the exploration program is wound down.

If most people will never visit the area, what is the concern? Probably not Stokes Point itself, for the reasons

already mentioned. No, the concern is larger and vastly more difficult to define and address. It has to do with what a national part in a wilderness setting ought to be. It has to do with perception of wilderness.

It has to do, also, with an uneasiness many people feel, their suspicion that even a temporary yielding to urgent industrial needs is the beginning of a long-term, incremental and practically irrevocable process.

Then, too, there are important questions involving claims negotiations. Three major groups and the communities they represent — the Council for Yukon Indians, the Déné and the Committee for Original Peoples Entitlement (COPE) — have a vested interest in the area.

The government of the Northwest Territories sees the Gulf Canada plan as competition for Beaufort development, with its associated job creation and other benefits, now concentrated at Tuktoyaktuk and McKinley Bay. The Yukon government regards it as an opportunity to become more directly involved in Beaufort industrial activity.

Ministers and officials must also be concerned with the conclusions the United States and Alaskan governments may draw regarding

Canada's resolve to protect the calving area of the Porcupine caribou herd.

Then we must take account of the long-term needs of industry. Dome prefers King Point, east of Stokes Point, because unlike Stokes Point — it can accommodate the deeper draft vessels needed for production. Kewitt Construction Ltd. envisages another location east of King Point, where a jetty could be built to barge sandstone from an inland quarry site for the United States and Canadian exploration program. (Such a jetty could perhaps meet Gulf Canada's needs.)

Last, but by no means least, is the effect an early decision will have in preempting the conclusions of the Beaufort Sea Environmental Assessment and Review Panel, which begins public hearings this fall on the environmental consequences of Beaufort Sea hydrocarbon production.

The ultimate decision rests with the ministers concerned and their cabinet colleagues — to avoid proliferation of development on the North Slope, to protect the area's integrity and habitat, for caribou and migration birds, to advance the national interest by delineating its hydrocarbon resources, to meet the needs of future generations by establishing a national park, and to meet the short and long-term needs of northerners, including those of our neighbors to the west.

Hard choices will have to be made. But whatever they turn out to be, we should remember that politicians and bureaucrats — although ultimately responsible for their actions — are not necessarily accountable for the final results. When the implications of even carefully considered decisions become known, it is often too late to revoke them.

Further information:

C.A. Lewis  
(819) 994-1516



# "The Arctic —

## Inuit Circumpolar Conference



Observers from Environment Canada attended the third general assembly of the Inuit Circumpolar Conference (ICC), held in Frobisher Bay (Iqaluit) during the last week of July. Many of the resolutions passed by the assembly were of special interest to the department.

The ICC is a non-government organization, created in 1977 to promote the rights and interests of Inuit living in Greenland, Canada, Alaska and the Soviet Union, although Siberian Inuit have not yet been able to join the organization. Inuit organizations in each of the three host countries send eighteen delegates to the ICC's general assemblies, held every three years.

Resolutions spanned a wide range of Inuit concerns and interests: subsistence hunting, environmental protection, economic development, communications, education, language, women's rights, constitutional development, art, the marine

environment, offshore oil and gas, and nuclear testing.

Several resolutions called for Inuit participation in the management of subsistence hunting — for example, under the Migratory Birds Convention with the United States and under the land claims agreement with the Tungavik Federation of Nunavut in the eastern Arctic.

The ICC also wants to be closely involved in the management of arctic marine environments such as Baffin Bay/Davis Strait, the object of an impending agreement between Denmark and Canada on the control of pollution from ships and offshore drilling rigs. The ICC has also called on the governments of Canada, Denmark and the United States to join with it in developing adequate response mechanisms to deal with oil spills in arctic waters.

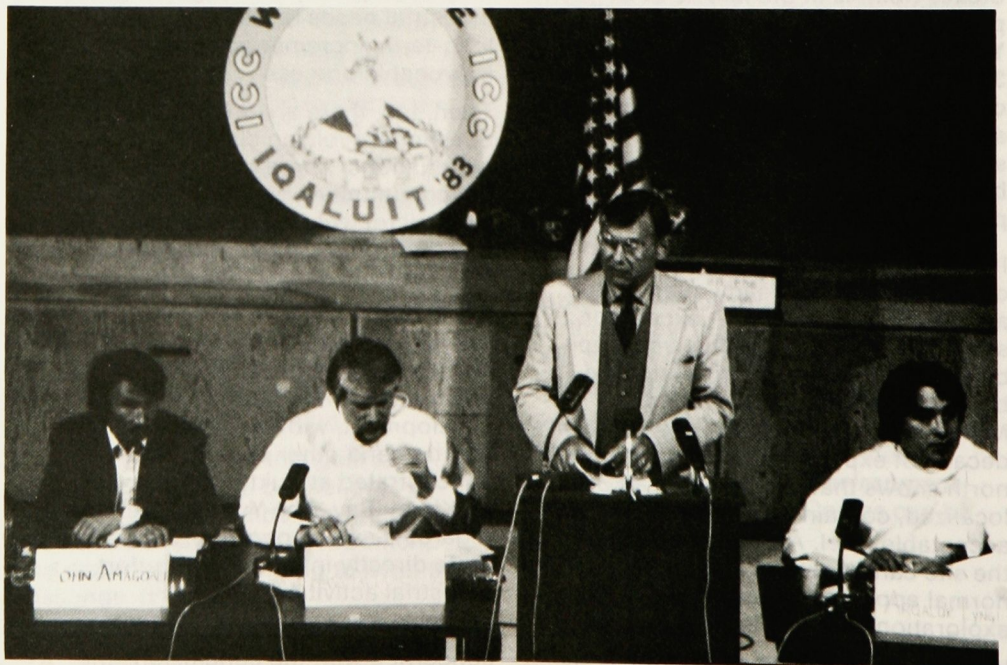
This year, three Canadian representatives were chosen by each of the six regional Inuit organizations in Canada: the Labrador Inuit Association, the Baffin Region Inuit Association, the Makivik Corporation of northern Québec, the Kitikmeot Inuit Association, Keewatin Inuit Association and the Committee for

Original Peoples' Entitlement (COPE) in the western Arctic.

Those elected included many of Canada's outstanding Inuit leaders: John Amagoalik, Inuit Tapirisat of Canada (ITC); Charlie Watt, Inuit Committee on National Issues (ICNI); Mary Simon, Makivik Corporation; Bob Kadlun, Tungavik Federation of Nunavut (TFN); Fran Williams, Labrador Inuit Association; Tagak Curley, Nusasi Corporation (formerly the Inuit Development Corporation); Lucien Uklianuk, Baffin Region Inuit Association (BRIA); Peter Ernerk, Keewatin Inuit Association; and Josepi Padlayat, Inuit Broadcasting Corporation (IBC).

Similarly, the Alaskan and Greenlandic delegations included leaders drawn from native corporations, hunters' and trappers' associations, municipalities, and cultural and communications organizations.

The Greenlandic delegation included members of all three parties in Greenland's legislative assembly (Landsting): Siumut, Atassut and Inuit Ataqatigiit. The leaders of two of these parties, Atassut and Inuit Ataqatigiit, have been re-elected to the ICC's



Mr. Justice Thomas Berger addresses the ICC assembly on the creation of the Alaska Native Review Commission.



# Our Common Responsibility"



*Inuit elders attended this year's assembly to create the ICC Elders Conference.*

executive council. Hans-Pavia Rosing, re-elected for a second term as president of the ICC, is a member of the Landsting for the governing Siumut Party.

The ICC is perhaps best known for its opposition to the Arctic Pilot Project, Petro-Canada's plan to ship natural gas from the High Arctic through Baffin Bay to southern or European markets. The ICC's opposition has centred on the risk to the environment posed by icebreaking tankers — notably the risk to marine species vital to Inuit hunting economies in Greenland and Canada.

The ICC intervened at the 1983 meeting in Botswana on the Convention on International Trade in Endangered Species (CITES), and at meetings of the International Whaling Commission (IWC). In these and other forums, the ICC promotes the view that Inuit subsistence hunting can be managed successfully by Inuit without endangering the survival of species such as bowhead and beluga whales, seals, polar bears and seabirds.

The ICC has initiated a precedent-setting inquiry within one of its member countries. Thomas Berger, who left the Supreme Court of British

Columbia in August, and who conducted the Mackenzie Valley Pipeline Inquiry during the latter part of the 1970s, will head the Alaska Native Review Commission.

Through a series of community hearings in Alaska, this commission will prepare a report to the ICC on the socio-economic and political significance of the Alaska Native Claims Settlement Act of 1971. The results are expected to have a major impact on land claims settlements in Canada.

This year's assembly also adopted principles that will serve as the basis of ICC policies on the circumpolar environment and arctic development. These policies should complement Environment Canada's evolving northern policies, as articulated in its current discussion paper, *Environment Canada and the North*.

The ICC's executive council is expected to play an active role over the next three years — in dialogue with circumpolar governments, at the United Nations (where it recently acquired consultative status within the Economic and Social Committee), and through participation in such bodies as the World Council of Indigenous Peoples.

Further information:  
Craig McNaughton  
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*Inuit throat-singers from Povungnituk, northern Québec.*

*Photo Credit:  
A.H. Macpherson*



# Canada's Arctic Revisited

by Hon. John Roberts

*Shortly before moving to a new cabinet post, former environment minister John Roberts visited Canada's eastern arctic. Here are some of his impressions.*

I've visited the arctic twice in the last three years. My first visit was in 1981 when we were first coming to grips with an overall department policy for the north. The second was just last July, when we were on the eve of issuing our discussion paper — Environment Canada and the North.

On the first trip we flew by chartered DC-3 from Yellowknife, over the barrens north of Contwoyto Lake, to Bathurst Inlet. Thence we visited Coppermine, Holman Island, Sachs Harbour and the Mackenzie Delta, with stops to talk to native groups, settlement councils, developers and scientists.

I took the second trip by chartered Twin Otter, from Frobisher Bay. We visited Cape Dorset and the Dewey Soper Bird Sanctuary, Pangnirtung and Auyuittuq National Park, Pond Inlet and Bylot Island, Eureka, Polar Bear Pass on Bathurst Island, and Resolute Bay. Our Nordair flight back to Montreal took us, in clear weather, over Melville Peninsula, Southampton Island and the Belchers. Not only did I see an immense amount of country, but again I had occasion to discuss common interests with native groups and other members of the public, and to see something of the endeavors of our staff members who ably serve the department, and the country, in arctic Canada.

Sandwiched into a heavy schedule, I'd be the first to admit that these trips amount to little more than a reconnaissance of **an immense and infinitely beautiful and mysterious part of Canada — an important part of the heritage and consciousness of every Canadian, as well as the sustaining birthright of our native Inuit.** But even a reconnaissance, supplemented with information obtained at meetings along the way, is enough to impress me with the great responsibilities Canada bears for stewardship of this unique part of the world.

The Minister of Indian and Northern Affairs bears the major responsibility for administering the Canadian arctic. But the role of Environment Canada is

nonetheless clear, direct and demanding. I refer to its responsibilities for national parks and migratory bird sanctuaries, for weather services and ice reports, for ocean dumping and pollution control, for environmental planning and environmental information.

I'm encouraged by the respect with which the department and its staff are met in the arctic — respect we've earned over many years of hard work.

It's a major challenge to keep up the tempo, to stay relevant and able to protect the environment as the world unfolds around us. New transboundary pollution threats, ever riskier technological exploration, new institutional patterns to work through — all ask for more influential but less traditional ways to accomplish our mission.

## Action Needed Now On Northern Parks

**With the current focus on northern development, Environment Canada wants to ensure that conservation areas of national interest in the territories are protected. It proposes to do this with a system of national parks, national wildlife areas and migratory bird sanctuaries.**

Parks Canada and the Canadian Wildlife Service are preparing a plan which will identify areas needing federal protection, and set forth a strategy to provide it. Details will be released in the spring of 1984.

The Parks Canada policy approved by cabinet in 1979 calls for a national park in each of Canada's 39 terrestrial and nine marine natural regions, forming a system representative of the country's diverse landscapes and marine areas. With 29 existing national parks, this system is now 40 percent complete. The greatest gap in representation lies in the north, where only 20 percent of the system is in place. A third of all the parks yet to be established are planned for the territories.

**Our natural environment, Canadians are told, is "yours to enjoy." Parks Canada wants them to enjoy outstanding examples of each of the country's natural regions, while preserving them unspoiled for future generations. This, in fact, is the aim of**

**all department policy — managing resources now for a secure future.**

In the northern territories, the parks policy calls for the eventual establishment of 14 national parks and some marine national parks. They now have one national park, Wood Buffalo, and three national park reserves, Kluane, Nahanni and Auyuittuq. In the northern national parks, native people will be able to continue their traditional activities of hunting, fishing and trapping. At the same time, they will have new employment and economic development related to tourism and national park activities.

Since the 1960s and early 1970s, the expansion of the national park system has slowed to a snail's pace. In the four years since cabinet endorsed the present parks policy, only one area has been set aside for that purpose; in 1982 lands were set aside for a new national park on northern Ellesmere Island. But the public consultation program set up to determine the feasibility of six new northern initiatives has not resulted in other concrete action. The northern national park program has lost its momentum, and requires renewed action.

Such action is urgently needed if we

(Continued on page 14)



# Agreements Paying Off In Northern Quebec

**Isolated and ignored for a long time, northern Quebec is slowly making a place for itself on the map. Since the 1950s this area, rich in natural resources, has opened its doors to entrepreneurs. Its iron deposits near the Labrador border, the mines and forests around James Bay, and especially the hydroelectric potential of its rivers have attracted successive waves of workers hired to carry out large-scale projects.**

The iron industry depended largely on the world steel market. Its star faded as quickly as it rose, leaving its mark on the environment and on life in towns like Schefferville. Today the use of renewable resources such as hydroelectricity is being organized on a different basis.

The announcement of the construction of the Complexe La Grande in 1971 set off a debate on the fundamental issue of development, between the native Cree and Inuit, the governments of Canada and Quebec and the Crown corporations involved in the project — Hydro-Quebec, the James Bay Energy Corporation and the James Bay Development Corporation. After long negotiations, these parties signed the James Bay and Northern Quebec Agreement in 1975 exchanging some native rights and financial compensation for other benefits. In 1978, the Naskapi signed the Northeastern Quebec Agreement which gave them similar benefits.

Quebec government departments will henceforth provide the beneficiaries with services available to all Quebec residents, such as education and health services. These will be administered by agencies staffed by native people, enabling them to take part in decisions that affect them, and thereby giving them a degree of autonomy.

The agreements guarantee the continuation of the Cree, Inuit and Naskapi traditional way of life. A system for regulating hunting, fishing and trapping establishes their priority rights to the use of wildlife resources and exclusive trapping rights in the entire territory.

Each community has selected land where only native people and

authorized non-natives can hunt and fish. In addition, measures to control the activities of non-native workers interested in sport hunting and fishing make it possible to avoid certain conflicts between various wildlife users.

There are some problems in implementing this system, since the people of southern Quebec are not used to being in contact with cultural communities closely dependent on

wildlife resources. However, awareness in this area is slowly growing, as the beneficiaries of the agreements turn increasingly toward developing outfitting services for non-natives. They will gradually reach a new balance between their old subsistence way of life and a new way based on using wildlife for sport.

The northern environment is so fragile that any major disturbance can have an irreversible and undesirable impact on it. The agreements therefore establish a system to protect both the social and physical environments, providing for advice and assessment of development projects.

Advisory committees study all environmental questions and make recommendations to the appropriate

*(Continued on page 14)*

# Lancaster Sound Approved For Year-round Shipping

**Lancaster Sound, north of Baffin Island, has been approved as a year-round shipping route by the Environmental Advisory Committee on Arctic Marine Transport, subject to public consultation.**

A key link in the Northwest Passage, Lancaster Sound is probably the only practicable shipping corridor between the central and western Arctic and the Atlantic Ocean. It now is used only during the summer, when weather, light and ice conditions are most favorable.

The rich waters of Lancaster Sound are ecologically unique in North America and perhaps the world, providing food and summer refuge for half the eastern Arctic's marine birds, a third of North America's white whales, and three-quarters of the world's narwhals. More than three million seabirds nest near the sound or feed in it during open-water season, and at least 10 species of marine mammals frequent its waters.

Petro-Canada's Arctic Pilot Project selected the sound as a shipping route because of its safety, environmental suitability and economy.

Several oil companies are considering the year-round shipping of oil and gas through Lancaster Sound. Dome Petroleum has proposed using a fleet of icebreaking tankers to transport Beaufort Sea oil to markets. Petro-Canada plans to ship 6.4 million cubic litres of liquefied natural gas per day to east coast markets, possibly starting as early as 1985.

The Environmental Assessment Review Panel that examined the Arctic Pilot Project noted the need for expert advice on environmental aspects of arctic shipping. Environment Canada responded by establishing the Environmental Advisory Committee on Arctic Marine Transport, strongly supported by the Department of Fisheries and Oceans and the Coast Guard.

The committee includes representatives of several federal departments, the territorial governments, the oil and gas and mining industries and the Inuit Tapirisat of Canada. Co-chairmen are supplied by Environment Canada and Fisheries and Oceans.



# Industry Blamed For Arctic Haze

**Air pollution forms a haze over most of Canada's arctic, scientists with the Atmospheric Environment Service have discovered. The pollution has its source in the Soviet Union, western Europe and to a lesser extent North America, and dramatically increases in concentration during the winter.**

These findings follow three years of sampling air at three northern stations: Mould Bay, Igloolik and Alert. This three-station air-monitoring network is taking part in an international research program involving scientists from Norway, Denmark, Iceland, the United States and Britain.

Joint studies conducted last March and April with the United States and Norway, during the Arctic Gas and Aerosol Sampling Project (AGASP), indicate that although the haze particles are acidic, this does not affect precipitation. The pH of new snow samples taken at Alert during AGASP was neutral — about 7.2. However, the haze particles act as nuclei in the formation of ice crystals in the atmosphere.

This spring's study also noted the persistent level of haze seen in previous years. However, this fell briefly on two separate occasions

when aerosol concentrations dropped with the arrival of different air masses at Alert. Scientists are currently trying to locate the sources of these air masses.

Visibility throughout the AGASP experiment was generally better than 20 kilometres except during periods of snow, blowing snow or ice crystal precipitation. Arctic haze is caused by suspended particles which scatter light and reduce horizontal visibility from 300 kilometres to about 30 kilometres.

The haze may extend to a height of several thousand metres above the ground. Particle levels are 20 to 40 times higher in winter than summer, because of a shift in the prevailing winds.

The suspended particles consist of contaminants from coal- and oil-burning industrial areas and smelters in the mid-latitudes 30° to 60° north. In fall and winter, the prevailing winds bring particles from the Soviet Union; in late winter and early spring, from western Europe and, to a lesser extent, North America.

North American airborne pollution is generated mainly in the eastern part of the continent, and blown out over the Atlantic Ocean. Soviet pollution

sources are either upwind or within the arctic airmass, and so directly affect the arctic atmosphere. European pollution travels northward over Scandinavia or the Soviet Union.

The cause of arctic haze may be more clearly defined by 1984, when Canada plays host to the Third International Symposium on Arctic Air Chemistry. This may help decide whether a formal international effort to curb arctic air pollution is warranted.

Further information:  
Dr. R.M. Hoff  
(416) 667-4786

## Special Places in the North

Environment Canada's has published its 1980-81 inventory of environmentally significant areas in northern Canada, entitled **Canada's Special Places in the North: An Environment Canada Perspective for the '80s**. This inventory, a joint effort by Parks Canada, the Canadian Wildlife Service (CWS) and Lands Directorate, describes over 130 areas, many of them for the first time.

These will be carefully examined in the months to come, for possible addition to the conservation land systems operated by Parks Canada and CWS.

Northern Yukon has been highlighted as an area of special importance, which will receive continuing attention from the department.

A large fold-out map of the north can be removed from an envelope at the back of the report.

Copies of this publication, in either official language, are available free from:

Land Policy and Research Branch  
Lands Directorate, Environment  
Canada  
20th Floor, Place Vincent Massey  
351 St. Joseph Blvd.  
Hull, Quebec K1A 0E7

## New Wildlife Area

**Polar Bear Pass, on Bathurst Island, will soon be protected as a national wildlife area. The 5 km-wide lowland, stretching across the island's narrowest point, is being transferred to the Canadian Wildlife Service from the Department of Indian and Northern Affairs.**

The pass was named for the polar bears using the lowlands to cross the island in search of seals. But Polar Bear Pass is more than a convenient corridor for wildlife. It stands out for its extensive vegetation in an otherwise barren land — an abundant oasis where spring arrives several weeks earlier than anywhere else on the island.

In winter, dust from nearby hills is blown onto the pass where, in spring, the dust absorbs the sun's heat and melts the snow.

Arctic foxes, lemmings, muskoxen and

caribou inhabit Polar Bear Pass, and 30 species of birds nest there. Walrus, polar bears and three species of seals frequent the adjacent waters, which are open most of the year. The pass supports 122 species of moss, 182 species of lichens, seven kinds of fungi and more than 65 other plant species.

Before the federal government took action to protect them, these large and diverse plant and animal populations were threatened by proposed oil exploration on Bathurst Island.

The Canadian Wildlife Service is negotiating a wildlife agreement on Polar Bear Pass with the Government of the Northwest Territories, Indian and Northern Affairs, the National Museums of Territories, Indian and Northern Affairs, the National Museums of Canada, the Department of Fisheries and Oceans and the local hunters' and trappers' association.



# Canadians Pleased with CITES meeting

The 10-member Canadian delegation, headed by Director General Bert Tétreault of the **Canadian Wildlife Service**, is happy with the outcome of the fourth meeting of the Parties to the Convention on International Trade in Endangered Species (CITES). From Canada's viewpoint, the two-week meeting in Gaborone, Botswana, was very successful, with all major objectives attained.

**The delegation took strong positions on a number of contentious issues. Canada had proposed changes in the status of 10 native wildlife species under the terms of the CITES appendices (lists of controlled plant and animal species), and succeeded in having five deleted from the regulated lists.**

The long-jaw cisco, blue walleye and northern swift fox were deleted from Appendix I, which prohibits all commercial trade. The lake sturgeon and Canada's bighorn sheep were deleted from Appendix II, which allows trade only with a special permit.

The delegation withdrew proposals to delete the brown bear, wolf, lynx and bobcat from the appendices, and to downgrade the short-nosed sturgeon from Appendix I to Appendix II. They agreed to keep these five species on the appendices to protect other species of similar appearance, which are threatened or endangered in other countries. The plenary session endorsed this position.

The meeting carried a proposal by the Seychelles to ban commercial trade in all whale species regulated by the International Whaling Commission, starting Jan. 1, 1986. The vote was 29 to 5, with Canada and 19 other nations abstaining. Certain populations of Bryde's whale, giant bottle-nosed whale and bottle-nosed whale were also placed on the prohibited list; commercial trade in these whales was formerly allowed with a CITES permit.

In a rare secret ballot, proposed by Canada, the meeting defeated a resolution by West Germany to add all earless seals to Appendix II. The defeat came after a vigorous debate in which the resolution was shown to be politically motivated, and not based on

scientific evidence as required by CITES.

Also defeated was a resolution by the Gambia to ban trade in all species listed under CITES that are caught by leg-hold traps. This resolution was declared ultra vires in a technical

committee meeting. Discussion during the plenary session acknowledged Canada's pioneering research to develop and promote humane traps.

Canada's delegation included representatives of the Canadian Wildlife Service, Fisheries and Oceans Canada, Indian and Northern Affairs, External Affairs and the Province of British Columbia, representing all the provinces. Peter Ittinuar, member of Parliament for the Northwest Territories, acted as special adviser.

Further information:  
Wayne Roddick  
(819) 997-6555

## Tracking Air Pollution

**For six weeks starting this month, Canadian and United States scientists will be tracking the movement of an inert tracer substance through the atmosphere over much of eastern North America. The experiment, known as CAPTEX (Cross-Appalachian Tracer Experiment), is intended to track the long-range transport of air pollution by winds.**

On Aug. 23, Environment Minister Charles Caccia signed an agreement with the United States government authorizing the joint project.

It is hoped these experiments will provide even clearer confirmation that air pollution causing acidic precipitation can be transported over great distances, from one country to another. The data collected will help scientists further evaluate the ability of current numerical models of the atmosphere to predict the rate, direction and distance of that movement.

Canadian scientists will release an inert, colorless, odorless, non-toxic tracer (perfluoro-monomethyl-cyclohexane) on three occasions from the Sudbury area. U.S. scientists will make three similar releases from Dayton, Ohio.

The release sites chosen are near two of the main sources of air pollution in northeastern United States and southeastern Canada, thought to contribute significantly to the acid rain problem in North America. Two hundred kilograms of the tracer will be released over a three-hour period at

about one-week intervals, depending on prevailing winds and other weather conditions.

After each release, the scientists will track the movement of the tracer for 1000 kilometres using seven aircraft and a network of 85 sampling stations on the ground. The ground stations form a grid through the northeastern United States, southern Ontario and southern Quebec, with one station in Nova Scotia.

Scientists expect to collect over 6 000 air samples during the experiment. They must analyze each sample by gas chromatography before they can produce a picture of where the tracer went from each release point. Results are not expected until next year, but if the experiment proves successful, much longer and more elaborate projects are expected.

Participating in CAPTEX are scientists from the Atmospheric Environment Service of Environment Canada, the National Research Council, the Quebec and Ontario environment ministries and several United States agencies: the Department of Energy, the National Oceanographic and Atmospheric Administration, the Environmental Protection Agency and the Electric Power Research Institute. CAPTEX is expected to cost \$2 million to \$3 million, of which Canada will contribute about 10 percent.

Further information:  
Dr. P. Summers  
(416) 667-4796



# What Happened to Our Winter?

## Weather experts are still trying to find out what happened to Canada's winter in 1982-83.

Environment Canada climatologists have confirmed that most Canadians largely escaped its bitter sting. Except in the northeastern arctic, record to near-record mild temperatures occurred across the country.

Weather patterns in other parts of the world were also unusual. Heavy rain caused flooding in Ecuador and Peru, Australia experienced one of its driest seasons, and vigorous storms lashed the west coasts of North and South America.

Climatologists attribute these confusing weather events to El Niño — a weak warm coastal current that develops off Peru and Ecuador around Christmas every year, creating a vast body of warm water in the equatorial Pacific Ocean. Peruvian fishermen called it Corriente del Niño — Current of the (Christ) Child.

Last year this 40-70 metre deep layer of warmer surface water expanded from a few million square kilometres in October to nearly 30 million square kilometres by mid-March — an area about three times the size of Canada. Surface water temperatures were near 28° C, a startling 5° C above normal.

As weather experts try to unravel the mystery of El Niño, they are discovering a sequence of ocean-atmosphere events that usually precede the warm episode in the equatorial Pacific. One is a fall in air pressure during the "Southern

Oscillation" — so called because the pressure on opposite sides of the Pacific follows a see-saw curve. Its 1982 value was the lowest ever recorded.

The most widely accepted theory concerning El Niño can be summarized as follows:

Abnormally strong trade winds in the lowest 2 kilometres of the atmosphere blow a couple of months, raising the sea level in the western Pacific and lowering it in the eastern portions. These winds then weaken considerably, and accumulated water in the west Pacific returns to the east by way of the Equatorial Counter-current much like water in a bathtub. Then the sea level and water temperature rise along the South American coast, burying the cool waters off Peru — and so El Niño is born.

But how does an oceanic process in the equatorial Pacific affect the winter in Canada? To find out, climatologists at Environment Canada have been monitoring El Niño carefully. Computer models at Environment Canada's Canadian Climate Centre in Toronto have shown that the sea-surface temperature anomalies in the equatorial Pacific may have a significant influence on our winters.

The development of a warm episode in the equatorial Pacific is accompanied by a general warming of the atmosphere near the equator. This increases the temperature difference between the equator and the poles,

accelerating the westerly air flow and bringing milder Pacific air over most of North America.

In their efforts to develop seasonal forecasts, climatologists have recognized that the El Niño phenomenon may be used as a predictive tool. Unfortunately, though, El Niño does not guarantee a mild winter; some past El Niños coincided with very cold Canadian winters.

When will the next strong El Niño develop, and how will it influence Canadian weather? As yet, no one knows for sure.

Further information:

Amir Shabbar  
(416) 667-4711

## Marine Bird Atlas

The Canadian Wildlife Service has completed an atlas showing the distribution of marine birds on Canada's Pacific coast.

The atlas presents the first concrete baseline data on birds at sea, and breeding marine bird populations on the British Columbia coastline. It complements a similar study undertaken by Alaska, and smaller-scale surveys (on breeding marine birds only) carried out by Washington State, Oregon and California.

The authors say one of the greatest threats to marine birds in the northern hemisphere is oil spills. They express concern about recent applications to establish a tanker terminal on the west coast of Canada or Washington State, and about the possible lifting of a moratorium on offshore drilling on the Canadian Pacific Shelf.

At least two years of surveys are needed, say the authors, before proper judgments can be made on terminal locations and offshore drilling operations.

Further information:

Paul Mitchell  
(604) 666-6058

## Making Winter Livable

What works quite well in milder climates may not be suitable for Canada. That's the thinking behind the Livable Winter City Association, a group of urban planners, designers, climatologists, environmentalists and others concerned with urban design.

The association was formed earlier this year to do something that has never been tried before — to match urban and community designs in Canada with the prevalent climate of the area. Says Jack Royle, a retired technical journalist and initiator of the group:

"We have to stop designing Canadian projects as if they were located in the southern United States."

Winnipeg, for example, with its broad avenues, has a design more compatible with Arizona than Manitoba. Ottawa's Sparks Street Mall was designed after a mall in Toledo, Ohio; Ottawa weather makes it impossible for the mall to operate effectively for more than a few months a year.

The association hopes to increase the

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# Governments Purchasing New Water Bombers

**The federal government and four provinces have concluded negotiations for the joint purchase of 23 CL-215 water bombers from Canadair Ltd. — 14 by the federal government and nine by the provinces.** The purchase will ensure the continuation of the CL-215 production run at Canadair.

Besides four aircraft for use in the north, the federal government will match the purchase of two planes each by Quebec, Saskatchewan and Newfoundland. Ontario will add three new planes to the two it acquired in late April, with Ottawa's agreement to buy four.

On April 25 the federal government announced it was prepared to purchase up to 20 water bombers, four for use in the north and up to 16 on a matching basis with the provinces.

This cooperative supply arrangement is one of more than 100 projects under the Special Recovery Projects program announced in the April 19 budget. Under the program, the federal government will bring to rapid completion a number of key capital projects, to reinforce recovery of the economy and foster private sector expansion.

The water bomber contract calls for a basic price of \$6.1 million for each aircraft. With provision for spare parts and cost escalation, it represents a total of almost \$200 million in business for Canadair, suppliers and sub-contractors in Ontario, Quebec, Manitoba and British Columbia. It is expected to provide some 660 jobs at Canadair and a further 120 jobs at other firms across the country.

The federally-purchased aircraft will be deployed in the participating provinces, constituting a national fire bomber fleet to meet peak fire season needs across the country. Their use will be coordinated by the Canadian Interagency Forest Fire Centre in Winnipeg.

The Canadair CL-215 is the only aircraft specifically designed as a water pick-up fire bomber, and the only modern fire bomber in production. A federal-provincial technical committee has rated it as the most cost-effective fire bomber available.

# New Forestry Pact Signed With P.E.I.

**Prince Edward Island has become the second province to sign a new forest resource development agreement, emphasizing long-term forest management. A similar agreement was signed with Nova Scotia in August 1982.**

The five-year agreement, calling for the expenditure of \$20.2 million, should mean increased employment and better quality material for the province's forest-related industries. The accord includes four major programs dealing with private and Crown land forest management, forest development and administration.

Forest land accounts for 48 percent of Prince Edward Island's land area. Ninety percent of this is owned by 16 000 small woodlot operators.

Officials expect to sign forest management plans with 1 600 woodlot

owners over five years. Activities such as thinning, site preparation, planting, stand reclamation and boundary line identification are planned to increase the harvest of high quality softwood.

The federal government will contribute \$13.7 million over the next five years, while Prince Edward Island contributes \$6.5 million. A \$2.2 million expenditure of federal funds has been approved for 1983-84. The Canadian Forestry Service will establish an office in Charlottetown to manage the federal share of the agreement.

The agreement ensures the continuation of forestry activities started under the 1977 Canada-P.E.I. Comprehensive Development Plan (CDP). Under this plan, which ends next March 31, the federal government has committed \$8.3 million to P.E.I. forestry programs.

# Oshawa Marsh Threatened

**The Oshawa Second Marsh is gravely threatened as a wildlife habitat by an accumulation of eroded soil within the marsh.** This is the finding of an intensive study initiated by Environment Canada in response to increased public concern.

The study will serve as a basis for a dialogue between Environment Canada, other government agencies and the public aimed at conservation of the marsh.

Some 43 percent of all Lake Ontario shoreline marshes have been lost, while many others are threatened by increasing urbanization, development and farming practices.

Oshawa Second Marsh, 117 hectares in size, is within the city of Oshawa. Its ecosystem, which includes a lakeside marsh and woodland, is considered to be one of the largest and best on Lake Ontario.

The newly completed study provides details on watershed erosion and sediment transport, water quality and

(Continued on page 13)



# New Draft Policy for Marine Parks

**Parks Canada is turning its attention seaward, to our marine environment. For nearly a century it has concentrated on protecting significant examples of Canada's natural heritage in the national parks system. But these efforts have been directed almost exclusively to land areas.**

Now, however, to protect our marine heritage, Parks Canada has developed a separate policy for national marine parks. This reflects the management considerations unique to marine ecosystems, as well as the multiplicity of jurisdictions, interests and traditions in marine areas.

In developing the proposed policy, Parks Canada had input from other services of Environment Canada, the Department of Fisheries and Oceans, the Canada Oil and Gas Lands Administration, the Department of Indian and Northern Affairs, the Department of Energy, Mines and Resources, Transport Canada, the Department of Industry, Trade and Commerce and the Department of National Defence.

The primary objective in establishing marine parks will be to protect and conserve for all time significant examples of Canada's marine heritage. Parks Canada will encourage public understanding, appreciation and enjoyment of this heritage in ways that leave it unimpaired for future generations.

A national marine park will include submerged lands and the overlying waters, together with certain coastal lands and islands. The administration and control of fisheries, navigation and shipping will continue to be exercised by federal ministers now responsible for their regulation.

Parks Canada invites your comments on its draft policy for national marine parks. Copies may be obtained from any of Parks Canada's five regional offices, or from:

Director  
National Parks Branch  
Parks Canada  
10 Wellington Street  
Hull, Quebec  
K1A 1G2

# Brochures on Marine Climate

**Environment Canada's Canadian Climate Centre has published three booklets describing how to obtain climate data for Canada's offshore and coastal areas** — data essential for planning activities in those areas. Entitled "Sources of Marine Climate Data", they appear in separate editions for each of Canada's three marine environments: Atlantic, Pacific and Arctic.

They identify climate data and services available to the marine community and list the principal sources of climate information within each region. They also identify climate factors that should be considered in design and operations ranging from marine transportation and offshore oil and gas development to pleasure boating and fishing.

Copies of all three booklets, and other information on climate, may be obtained from the Canadian Climate Centre, Environment Canada, 4905 Dufferin Street, Downsview, Ont., M5H 5T4. For publications covering specific marine areas, write to one of the following addresses:

## Atlantic

Environment Canada  
Atmospheric Environment Service  
1496 Bedford Highway Avenue  
Bedford, N.S.  
B4A 1E5

## Pacific

Environment Canada  
Atmospheric Environment Service  
Suite 700, 1200 West 73rd Avenue  
Vancouver, B.C.  
V6P 6H9

## Arctic

Environment Canada  
Atmospheric Environment Service  
Argyll Centre,  
6325 - 103 Street  
Edmonton, Alta.  
T6H 5H6.

Further information:  
Michael Porter  
(819) 994-1985

# Join the Party!

**Canada's national parks, national historic parks and sites and heritage canals are going to have a birthday party. And everyone's invited.**

Almost 100 years ago, in 1885, the Government of Canada set aside for public use 10 square miles (nearly 26 square kilometres) around a newly-discovered hot spring near Banff, Alberta. That was the beginning of Banff National Park, Canada's first national park.

In 1985, Parks Canada will celebrate the centennial of our first national park, commemorating "100 years of conservation of heritage places in Canada."

To prepare for 1985, the minister has announced a \$3.2 million program to make Canadians more aware of this heritage. A series of films for television, special events, publications and national and regional exhibits are

planned. Many centennial projects will be cost recoverable, through the sale of foreign film rights and certain publications.

The minister has appointed a 12-member citizens' committee to encourage public involvement in the celebrations. A special trust fund will receive tax-deductible donations from individuals and corporations.

Gerald L. Kristianson, a public affairs consultant from Victoria, has been named chairman of the committee. Other members are Shannie Duff, Newfoundland; Daryl Guignon, Prince Edward Island; Lawrence Freeman, Nova Scotia; Allen Ruben, New Brunswick; Fernand Tremblay, Quebec; Barbara Sullivan, Ontario; Val Werier, Manitoba; Paul Bachorcik, Saskatchewan; James Blair, Alberta; Ted Harrison, Yukon; and Patricia McMahon, Northwest Territories.



# Hearings Under Way On Placer Guidelines

**A public review of proposed guidelines for placer mining in Yukon is being held this month in a number of Yukon communities. The guidelines were proposed by the Departments of Fisheries, Indian and Northern Affairs and Environment Canada to outline conditions for the management of water in placer mining operations.**

The review committee appointed by Northern Affairs Minister John Munro is chaired by Lone Christensen, former Yukon commissioner and former mayor of Whitehorse. Other members are Jack Cable, a Whitehorse lawyer; Ken Weagle, president of Ken Weagle Environmental Consultants Limited; and David Anderson, a consultant, professor and practitioner of environmental law.

The committee is seeking comments on the possible effects of the proposals on the placer mining industry, on the commercial, sports and native fisheries and on the natural environment. In particular, the committee has been asked to cover five points:

- the principal concerns of different interest groups
- the difficulties industry and other interest groups expect if the proposed guidelines are introduced
- socioeconomic considerations
- suggestions for revisions to the guidelines
- suggestions for an implementation schedule.

If adopted, the new guidelines would replace those in effect since 1976, which do not set any standards for effluent discharge. Like the existing guidelines, they would be used by the Controller of Water Rights and the Department of Indian and Northern Affairs in attaching conditions to authorizations for the use of water in placer operations. They could also be used by the Yukon Territory Water Board in issuing water licences to placer operators.

The placer mining industry has been requesting new guidelines for several years. It objects to what it perceives as inconsistency in the regulatory regime, and the controller's personal judgment and discretion in issuing and enforcing water use authorizations. The new guidelines are intended to reduce or remove those problems.

These guidelines would be issued under the authority of the Northern Inland Waters Act and the Northern Inland Waters Regulations, Section II. The guidelines are also intended to be consistent with the Canada Fisheries Act and the policies of Environment Canada and the federal Department of Fisheries and Oceans in the administration of the act. Dates and places of the hearings:

**Sept. 7-9, Whitehorse**  
**12-14, Whitehorse**  
**15, Carmacks**  
**16, Destruction Bay**  
**19-20, Mayo**  
**21-23, Dawson City**  
**26, Whitehorse**

## Environmental Evidence

The Banff Centre School of Management is offering a course of special interest to environmentalists, on "*How to Present Environmental Evidence*". The four-day course will run from Monday, Oct. 31 to Thursday, Nov. 1, with registration the previous Sunday evening.

Course director is Andrew R. Thompson, director of the Westwater Research Centre at the University of British Columbia, who will also be a seminar leader. Other seminar leaders are David Estrin, a founder of the Canadian Environmental Law Association; and Steven H. Janes, president of S.H. Janes and Associates Ltd., environmental consultants.

Further information:  
 The Banff Centre School of  
 Management  
 P.O. Box 1020  
 Banff, Alta. T0L 0C0

# Public Supports Lead Restrictions

**The proposed reduction or removal of lead from gasoline has received strong public support.**

The Environmental Protection Service is currently analyzing the more than 600 letters and other submissions in response to the proposal, announced in the Canada Gazette last March.

Some 54 percent call for a phasing down or complete elimination of lead, while another 35 percent give qualified support to a phase-down. Only eight percent entirely oppose any reduction, and five percent request further information.

Many letters reflect the widespread misconception that older vehicles all need leaded gasoline at all times to function properly. This is the single biggest concern raised in letters expressing qualified support. Many of them urge that leaded gasoline still be made available for vehicles requiring it.

Some heavy-duty truck, marine and industrial engines, and some pre-1971 automobile engines, do require leaded gasoline for sustained heavy-duty use — that is, for continuous operation at two-thirds to full-rated engine speed.

But all other gasoline engines can use lead-free fuel without significant valve-seat wear.

Environment Canada will presently issue a report responding in detail to all the concerns expressed.

Further information:  
 G. Harris  
 (819) 997-6555

## Oshawa *(Continued from page 11)*

quantity, wildlife, vegetation, shoreline processes and marsh soil and sediment quality and quantity. Among other things, the report shows:

- The marsh is suffering from a high rate of sediment deposition, increased pollution and isolation from other natural areas.
- Bottom sediments are contaminated with heavy metals such as nickel and zinc.
- The marsh, formerly an important habitat for migratory waterfowl, supports a smaller duck population.

Further information:  
 Garth Bangay  
 (416) 637-4551



# Weathering Effective in Cleaning Up Oil

Scientists have completed the final field season of a four-year study under the Baffin Island Oil Spill (BIOS) program to determine the best methods of cleaning up oil spilled on arctic beaches. Although final conclusions will not be drawn until this year's data have been analyzed, some of the preliminary findings are surprising.

The program began in 1980 as part of the Arctic Marine Oilspill Program, in which the Environmental Protection Service is the lead agency. With the help of the Pond Inlet Council, a test site with beaches and lagoons was selected on Cape Hatt at the northern tip of Baffin Island.

In 1980, 1981 and 1982, crude oil was spilled on several beaches around a lagoon. On some sites the oil was left to weather naturally; on others it was cleaned up using a variety of techniques, such as burning.

In 1981 oil was released directly into the water and allowed the wash ashore to simulate an actual spill. Some of it was treated with a chemical dispersant, which breaks up and spreads the oil to dilute its local impact. The impacts at the test sites and the effects of treated

and untreated oil on plants and animals were measured each summer.

Contrary to scientists' predictions, natural weathering proved effective in cleaning oil from certain types of beaches. Within one season, oil disappeared from coastlines where there was at least moderate wave action. It had been thought that natural weathering would be slow because of the short open-water season (about two months) and the low wave energy typical of arctic waters.

In sheltered coves, however, the oil has persisted throughout the four years of the study.

Oil treated with dispersant had a more severe short-term effect on clams, starfish and other bottom-dwelling animals than did the untreated oil. However, they recovered after a few weeks. So far there is no evidence to suggest that dispersants should not be used for cleaning up oil in the Arctic. But their long-term effects will be monitored.

Final results of the BIOS program will be presented at a seminar in the spring of 1984.

## Agreements Paying Off

*(Continued from page 7)*

authorities, while supervising implementation of the impact control procedures. Large-scale development projects are subject to detailed analysis before the work is authorized. All aspects of a project are taken into account in the assessment and review process, so the necessary changes can be made and corrective measures taken while the work is being done, or during subsequent operations.

Local and regional administrations, as well as the Canadian and Quebec governments, are closely involved in this process. The agreements thus have opened the way for a more coherent approach to northern development. The Quebec government has subsequently passed appropriate legislation, and undertaken to establish standards and regulations suitable to this region.

Implementation of all aspects of the agreements has now begun, and is well under way in some sectors. For further information:

## Making Winter Livable

*(Continued from page 10)*

effectiveness of future urban design projects by preventing costly oversights of relevant climate data.

Secretary-treasurer Joan Masterton, of the Atmospheric Environment Service's Climate Application and Impact Division, provides a useful link between the association and the Canadian Climate Centre (CCC). **The CCC wants to encourage architects and urban planners to incorporate climatic data and principles into building structure, design and location, and the layout of urban areas as a whole.** In return, AES hopes to gain a greater awareness of the type and format of climatological data best

suitable to this important group of users.

A Livable Winter City Conference, to be hosted in Edmonton by the association, will bring together other climate and urban design organizations from the United States and Canada.

## Action on Parks

*(Continued from page 6)*

are serious about managing resources to achieve a secure future.

Environment Canada officials see the next few years as the most opportune time to set aside conservation lands in the north.

Resource development, political devolution and the settlement of native land claims — although desirable — restrict the ability of the federal government to round out the national conservation system. This is shown by the fact that 94 percent of all existing national park lands were created out of federal land holdings. Only six percent of the park system was acquired from the provinces.

Environment Canada's objective is the dedication of about 10 percent of territorial lands to long-term conservation. Compared to the situation in Alaska, where 25 percent of the state is federally protected, this goal is modest. It will leave practically all the rest of the territorial lands available for resource development — unless the territorial governments establish other parks.

In view of diminishing future opportunities, Environment Canada is gearing up for action on northern conservation. The department's challenge is to chart a much-needed, farsighted course of action in the next few years, with the necessary support from politicians, industry, natives, special interest groups and the general public. In meeting this challenge, it will justify its claim to be the department of the future.

Further information:

Tom J. Kovacs  
(819) 994-3012

## Regional Consultation — Ontario

The Ontario region's 1983 public consultation meeting will take place Oct. 27-29 at the Hamilton Convention Centre. It will be billed as an environmental conference with the theme "Environmental Challenges 1983".

Further information:

Maureen Martinuk  
(416) 966-6406



